European-Americans settled and developed the West generally in response to two factors:

- the presence of ample natural resources; and
- the evolution of Federal land policies.

National and international demand shaped the economic development of the Region, as natural resources were identified, obtained, and marketed by non-Indian settlers. First sought were marine and terrestrial fur-bearing animals. Next was land with favorable climate, ranging from cool and wet west of the Cascades to temperate and dry to the east. Gold and other minerals, timber, salmon, and the Columbia River itself were targeted for development. Those goals—and the methods used to pursue them—significantly changed the environment, and profoundly diminished both tribal well-being and tribal access to traditional natural resources.

The attraction of the Pacific Northwest continues today, demonstrated by steadily increasing populations, as people migrate here from other parts of the United States and abroad. Between 1990 and 2000, based on the U.S. Census Bureau data, the Region (OR, WA, ID, MT) experienced about a 21% growth in population; it has a projected growth of about 19% between 2000 and 2015.[3] Table 2.2-1 below depicts the Region's state-specific population estimates for 2001 and percent increase from 1990 to 2000. The growing population continues to shape the uses of the Region's natural resources and puts an increasing pressure on them (see map Figure 2.10 at the end of this chapter).

Table 2.2-1: Regional Population Estimates and Growth Rates

State	2001 Estimated Population	Percent Increase 1990-2000
Idaho	1,321,006	28.5
Montana	904,433	12.9
Oregon	3,472,867	20.4
Washington	5,987,973	21.1

2.3 POLICY EVOLUTION

The evolution of fish and wildlife public policy—state, Federal, and tribal—in the Region has affected, and has been affected by, the human environment. The closer we get to the present, the more complex and inconsistent public policy has become. The discussion below summarizes that evolution. The first major section (2.3.1) reviews the evolution of policy up to 1980 (the year of the passage of the Regional Act). The second section (2.3.2) focuses on policy from 1980 to the present. To begin, Table 2.3-1 captures major events shaping fish and wildlife policy in the Columbia River Basin.[4]

[3] USDOC/US Census Bureau 1996.

[4] Some of the major events listed on this table through 1994 came from a timeline taken from Mighetto, L. and Ebel, W.J. 1994.

Table 2.3-1: Major Events Shaping Regional Fish and Wildlife Policy

Date(s)	Events
1800	An estimated 8-10 million salmon and steelhead return annually to the Columbia and Snake rivers
1855-1868	Era of treaties with tribes, followed by movement to reservations
1859	First irrigation project established in Columbia River Basin
1878	First hatchery established in Columbia River Basin, located on Clackamas River
1880s-1890s	Effects of mining, logging, farming, and fishing become apparent in declining salmon runs
1887	Congress directs Corps to investigate causes of declining salmon runs
1880-1890	Columbia salmon fisheries landings and cannery pack reach peak production
1900-1937	Major development of wildlife protection laws such as the Lacey Act (1900), Migratory Bird Treaty Act (1918), Migratory Bird Conservation Act (1929), Migratory Bird Hunting and Conservation Stamp Act (1934), Federal Aid in Wildlife Restoration Act (1937)
1935	Commercial fish wheels prohibited
1937	BPA created to market the power from the Federal hydroelectric projects
1938	Mitchell Act hatcheries authorized by Congress to mitigate for the effects of the fishing industry on declining fish populations
1938	Corps completes Bonneville Dam with fish passage facilities on the Columbia River
1941	Bureau begins operating Grand Coulee Dam, closing Upper Columbia River Basin to salmon migration
1948	Vanport flood
1950	Commercial fishing seines, traps, set nets prohibited
1950	Federal Aid in Sport Fish Restoration Act enacted to provide Federal aid to the states for management and restoration of fish having "material value in connection with sport or recreation in the marine and/or fresh waters of the United States"
1953-1975	15 Federal dams built on the Columbia and Snake rivers
1955	Corps, in consultation with the fisheries agencies, establishes laboratory at Bonneville Dam for anadromous fish research
1956	Native American fishery at Celilo Falls flooded by The Dalles Dam
1960	The Multiple-Use Sustained-Yield Act declares the purposes of the National Forest include outdoor recreation, range, timber, watershed, and fish and wildlife
1960s-1970s	Nitrogen supersaturation noted as an important source of salmon mortality, fish passage improvements added to dams
1961	Corps begins operating Ice Harbor Dam on Snake River
1964	The Wilderness Act establishes the National Wilderness Preservation System, designating natural areas for preservation and protection before they became occupied or modified
1967	Last summer chinook commercial fishing season until 2001
1967	USFWS list Columbian white-tailed deer as endangered
1967	Idaho Power Company completes Hells Canyon Dam, blocking salmon from Upper Snake River

Date(s)	Events
1968	The Wild and Scenic River Act passed to preserve free-flowing rivers, including river segments
1968	*US v. Oregon* treaty fishing rights case filed in Federal district court
1969-1976	Major development of broad-based environmental laws such as the National Environmental Policy Act (1969), Clean Water Act (1972), and Endangered Species Act (1973)
1975	Corps begins operating Lower Granite Dam, Columbia River Basin's last federally authorized and constructed dam
1977	BPA funding helps establish the Columbia River Inter-Tribal Fish Commission (CRITFC)
1977	Last major spring chinook commercial fishing season until 2000
1980	Congress passes Regional Act and creates Northwest Power Planning Council
1982	Council issued its first Columbia River Basin Fish and Wildlife Program
1990	First petitions submitted to list Snake River Sockeye and Spring/Summer and Fall Chinook
1990	USFWS lists northern spotted owl as threatened
1990	Northwest convenes the Salmon Summit to address the problem of declining salmon stocks
1991-1992	NMFS lists Snake River Sockeye as endangered and Snake River Spring, Summer, and Fall Chinook as threatened, later changed to endangered
1991-1996	12 anadromous fish stocks listed under ESA
1992	USFWS lists marbled murrelet as threatened
1993	President Clinton holds the Forest Conference to address issues surrounding the management of Federal lands in the Pacific Northwest and California
1994	U.S. District Judge Malcolm F. Marsh orders Federal government to improve dam operations, lessening their hazards to salmon
1994	USFWS lists Kootenai River white sturgeon as endangered
1994	Forest Service and BLM issue "The Northwest Forest Plan" Record of Decision
1994	Ocean salmon fishing banned for first time off northern Oregon and Washington coasts
1995[5]	NMFS issues its Biological Opinion: Reinitiation of Consultation on 1994-1998 Operations of the Columbia River Power System and Juvenile Transportation Program in 1994-1998. Endangered Species Act—Section 7 Consultation (NMFS)
1996	Five Federal departments enter into a Memorandum of Understanding outlining budgetary and other responsibilities for anadromous fish mitigation recovery for the USFS, BLM, USFWS, NMFS, the Bureau of Indian Affairs (BIA), Corps, Bureau, BPA, and the National Resources Conservation Service (NRCS). BPA's commitment includes $127 million annually for the Council's direct program plus the costs of operations

[5] Events from 1995 through 2001 are from the following sources: NMFS 1995; NMFS 1998a; NMFS 1998b; NMFS 2000b; USDOI/USFWS 2000; USDOE/BPA 2002d; USDOE/BPA 2002b; *US vs. OR*, Technical Advisory Committee 1997; Corps 2002b.

Date(s)	Events
1998	USFWS and NMFS issue InFish and PacFish Biological Opinions for listed bull trout, salmon and steelhead in water bodies throughout Forest Service and BLM lands
1998	NMFS issues Supplemental Biological Opinion: Operation of the Federal Columbia Power System, Including the Smolt Monitoring Program and the Juvenile Fish Transport Program: A Supplement to the Biological Opinion Signed on March 2, 1995, For the Same Projects. Endangered Species Act—Section 7 Consultation
2000	NMFS & USFWS issue Biological Opinions on the Operation of the Federal Columbia River Power System
1991-2001	In the past 1,000 years, 9 of the 10 warmest years have occurred since 1990. Concern is raised because climate changes may significantly affect fish survival in freshwater as well as the ocean. The changes are largely beyond human ability to manage
2001	NMFS receives de-listing petitions and revisits listing decisions for salmon ESUs in response to Judge Hogan's opinion in *Alsea Valley Alliance v. NMFS*
2001	Second worst water year on record; BPA declares power emergency, limits spill for fish, increases power rates by 46%, takes over $550 million in Treasury credit using §4(h)(10)(C) authorities
2001	1996 Fish Budget MOU expires; BPA plans for integrated direct program funding through 2006, which includes funding for offsite mitigation and recovery actions under the Council Program and BiOps
2001	Federal Caucus issues its Basinwide Strategy Paper outlining conceptual plan for recovery of listed ESUs
2001	Largest fish runs of salmon and steelhead through Bonneville Dam since the count of fish began in 1938: three times the average number of fish over the last 10 years
2001	First tribal commercial fishery harvest for spring chinook salmon since 1977
2002	NOAA Fisheries (formerly known as NMFS) issues specific interim "abundance and productivity targets" for each of the seven salmon and steelhead runs in the Columbia River Basin that are listed under the ESA
2002	Corps issues Record of Decision ROD for its Lower Snake River Juvenile Salmon Migration Feasibility Report/EIS; this ROD adopts the Major System Improvements (Adaptive Migration) alternative, which includes structural and operational measures to lower Snake River dams to improve fish passage rather than dam drawdown or breaching.

2.3.1 Historical Perspective: Policy Evolution from Subsistence Use of Fish and Wildlife Resources to 1980

Over the past two hundred years, the human environment of the Pacific Northwest has changed dramatically. Some normal variations (such as weather or ocean conditions) and natural disaster events are, of course, beyond human control. However, the vast majority of the changes, at least in number, has resulted and continues to result from expressed or implied public policies. Consequently, the state of the Pacific Northwest's human environment today is largely a direct or indirect consequence of policies followed over the last two hundred years. This section discusses how the human environment changed

from an era of almost exclusive subsistence use of fish and wildlife resources to the era of Federal intervention and the passage of the Regional Act in 1980.

- ***Note**: This section is a brief summary. More complete discussions of the development of the FCRPS and BPA are in Columbia River Power to the People: A History of Policies of the Bonneville Power Administration (Norwood, 1981), and Richard White's The Organic Machine (1995). The history of water policy and effects from water usage is documented in John Volkman's A River in Common: The Columbia River, the Salmon Ecosystem, and Water Policy (1997). Several comprehensive sources of information about the current salmon and resource problems in the Basin include the National Research Council's Upstream: Salmon and Society in the Pacific Northwest (NRC, 1995); Jim Lichatowich's Salmon Without Rivers (1999); the Snake River Salmon Recovery Team's Final Recommendations to the National Marine Fisheries Service (Snake River Salmon Recovery Team, 1994); Saving the Salmon, by Lisa Mighetto and Wesley J. Ebel (1994); and The Great Salmon Hoax, by James Buchal (1997). Several sources are especially helpful for a fuller understanding of tribal rights and interests, including the following: Felix Cohen's Handbook of Federal Indian Law (1945); Steven Pevar's The Rights of Indians and Tribes: the Basic ACLU Guide to Indian and Tribal Rights (1992); and the Columbia River Inter-Tribal Fish Commission's Spirit of the Salmon (Wy-Kan-Ush-Mi Wa-Kish-Wit) (CRITFC, 1996)*

2.3.1.1 The Era of Basic Subsistence: Early Native American Indians through the Arrival of Lewis and Clark in 1803

Over two hundred years ago, the human population in the Columbia River Basin consisted almost exclusively of American Indian peoples. The Cascade Range divided semi-arid deserts from rich fertile forestland. The Columbia River flowed uncontrolled and unpredictably through the Region, sustaining enormous runs of anadromous fish (see map Figure 2.17 at the end of this chapter), as well as abundant populations of resident fish and wildlife.

The first residents of the Pacific Northwest developed distinctive coastal and inland cultures that are now thousands of years old. Survival depended on use of the natural resources within the Region—the air, land, and water that supported vegetation, fish, and wildlife—and on elaborate trade networks. For tribes that were not too far upriver, the basis of the aboriginal economy was fishing.[6] For some tribes, salmon was not merely an important food, it was at the heart of an entire way of life. It was the staple item in the tribal year-round diet and a major commodity in trade between tribes.[7] Numerous tribes caught salmon at various locations along the river as the fish swam upstream to spawn. Other fish, marine mammals, waterfowl, game, and plant food sources were also plentiful.

[6] White, R. 1995, p. 18: "At The Dalles the Wishrams and Wascos derived between 30 and 40% of their annual energy requirements from salmon; at the other extreme, farther up river, the Kutenais, Flatheads, and Coeur d'Alenes obtained 5% or less."

[7] American Friends Service Committee 1970, p. 3.

The policies regarding fish and wildlife for the Columbia River Basin consisted of traditional cultural practices directed and preserved by elders of the many tribes and bands that inhabited the area. In general, these practices were based on the belief that there is a close physical and spiritual interrelationship between humans and nature. This close bond of the North American Indian to the natural world was demonstrated by the seasonal cycle of subsistence that formed an integral part of the tribal cultural fabric. Some Columbia River tribes engaged in ceremonies to help ensure the return of the sacred salmon.[8] They waited for salmon with anxiety because there were times when natural events precluded or drastically reduced the salmon runs.[9] The tribes also placed special significance on certain places in the landscape, especially near the river. Tribal elders used traditional practices to implement spoken policies requiring members to honor and respect the sacredness of the natural world. These policies allowed for the harvesting of natural resources for basic subsistence and for trade and commerce with other tribal groups. Part of this cultural view saw land as sacred, something never to be actually owned, although human occupants might serve as its guardians or custodians.

When Europeans first arrived in the Pacific Northwest, they found an environment rich in natural resources: a braided network of rivers running clear; a wide range of ecosystems that supported fur-bearing and other animals; abundant game and non-game species of birds and animals; and vast sweeps of forest. Fish were usually abundant in the Columbia River system. In 1803, when Lewis and Clark first encountered the Columbia River in their search for a westward path to the sea,[10] they found a river running with what may have been historic peak numbers[11]—approximately 8-10 million adult salmon.[12] Air, land, and water were clean and pristine, and the ecosystem functioned in a natural balance, without significant human intervention.

2.3.1.2 The Era of Land Claims and Commercial Development: 1803 through the mid-1930s

With European-American exploration and settlement in the Region, the age-old policy direction of basic subsistence soon gave way to a new era of an emerging commercial focus, as competition for the sea otter fur trade brought non-Indians to the Oregon Territory. These settlers regarded resources differently from Native Americans. Wildlife and other resources were taken, not just for subsistence, but for their commercial value. Conflicts over land ownership, exploitation of resources, and a host of related issues with particular significance for Native American peoples would begin to surface.

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[8] Lichatowich, J. 1999, pp. 33-37.

[9] White, R. 1995, pp. 18-19.

[10] See quotes from a letter from President Thomas Jefferson to Meriwether Lewis, dated April 27, 1803, describing the object of their exploration, included as attachment to the comment letter submitted by Inland Ports and Navigation Group (comment letter # 29).

[11] There is evidence that ocean conditions did not begin to favor the colonization of the Pacific Northwest by anadromous fish until approximately 10,000 years ago and that the most favorable ocean conditions, which resulted in the highest salmon returns, occurred in the 1800s. James Chatters 1997.

[12] NRC 1996, p. 15. The Council suggests that the number may have been higher, perhaps as high as 16 million salmon returning to spawn every year. See Council 1986. For an excellent account of Columbia River salmon issues generally, see Wilkinson, C. 1992.

Before the Pacific Northwest Region became part of the United States, European nations competed to control its important seaports and natural resources. Beginning with the Lewis and Clark expedition in 1803, the United States government, motivated by what has become known as Manifest Destiny,[13] began to invoke actions to claim territories of the west, induce settlement on the claimed territories, and commercially exploit the vast natural resources of the Region.

This new policy direction shifted emphasis to the following:

- control of the territory,
- displacement of Native American Indian tribes,
- settlement and withdrawal of lands,
- government ownership of lands,
- extraction of natural resources,
- harnessing of the river(s) for irrigation and flood control, and
- development of hydroelectric power.

By about 1830, settler-carried diseases had spread as epidemics among the vulnerable area tribes, killing about 90% of the individuals of the lower Columbia River tribes.[14] When, in the 1840s, the first major wave of European-American settlers arrived along the Oregon Trail, there was still no established national sovereignty over the Region. As a result, there were several years of struggle among national, religious missionary, and ethnic factions. Settlement by non-Indians continued to bring disease and discord to the native Indians, with disastrous effects on the various tribal populations.

Commercial Trapping[15]

In a cultural (and therefore policy) shift, the new immigrants took wildlife, not just for subsistence, but for its commercial value. While the use of fish and wildlife for trading purposes was pre-historic, indigenous peoples had self-regulated their usage with taboos and punishment.[16] However, trappers continued to trap and sell pelts from fur-bearing animals without regulation. The trade flourished through the early 1800s, but ceased to be a significant economic activity by 1850, largely because animals were hunted to near-extinction. By 1829, for example, the sea otter had been all but exterminated. Americans then began to bid for inland furs, primarily beaver. It took just two years to reduce the beaver population to near-extinction levels in the Snake River area.[17]

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[13] A U.S. policy during the 19th and early 20th century of imperialistic expansion defended as necessary or benevolent (1984, Webster's II New Riverside University Dictionary).

[14] Cone, J. 1995, p.108.

[15] Information in this discussion is from USDOE/BPA, Corps, and Bureau 1995.

[16] Lichatowich, J. 1999, p. 40.

[17] Lichatowich, J.A. and L.E. Mobrand 1995; and Wissmar, R.C., et al. 1994. See also Council 2000b, pp. 143-45.

Commercial Fishing

By mid-nineteenth century, the burgeoning European-American population of the Northwest had found many ways to make a living. Aside from would-be gold miners, there were farmers and ranchers, trappers (although, as the resource dwindled, so did the profession), and merchants. Anyone near a river still frequently saw a glittering bounty of fish available for the taking.

- The 50,000 to 60,000 Native Americans who lived in the Columbia Basin in the early 1880s are estimated to have harvested about five to six million adult salmonids per year.[18]
- Non-Indian commercial harvest had occurred in the Lower Columbia River since the 1860s and peaked for the different runs in the late 1880s and 1890s with the harvest of chinook at 43 million pounds, sockeye at 45 million pounds, coho at 7 million pounds, and chum at over 8 million pounds.[19]
- During this time, canneries packed as many as 630,000 cases of forty-eight one-pound tins during the annual runs. In 1906, fish wheels were taking more than a million fish each year. There were 55 canneries in Oregon alone.[20]

As with the sea otter and beaver, this intensifying harvest effort soon led to repeated declines in the annual catch. Toward the end of the nineteenth century, Oregon and Washington began to impose restrictions on harvest and to establish closed seasons to protect the commercial fisheries. However, the laws were haphazard and provided little effective protection. By the 1870s, the states of Oregon and Washington had begun to turn their attention to hatcheries, using artificial production to supplement runs already decimated by habitat damage (due primarily to destructive mining, grazing, and logging practices in tributary stream watersheds), commercial fishing, and an absence of fisheries management. Through the 1920s, salmon in the Columbia River were typically harvested for commercial purposes with gillnets and fish wheels. No serious effort to limit harvests would be taken for years. In the meantime, under the combined effects of excessive harvesting and tributary habitat degradation, salmon populations dwindled.

Timber Harvest

The vast forests of the Pacific Northwest were initially seen as both opportunity (materials for homes and businesses and fences) and impediment. Commercial cutting began in the 1800s when the first non-Indian immigrants settled and farmed the interior valleys of western Oregon and the Puget Sound region. The extensive forests and the riparian areas that covered much of the landscape were cleared and burned to make way for agriculture. Streams and rivers were channelized (directed and contained), and large tree and riparian vegetation were removed. These actions drained the extensive wetlands and increased the rate of water runoff. Because the supply of trees seemed inexhaustible,

[18] Council 1986, Chapter 3.
[19] Council 1986, Chapter 2.
[20] Council 1986, Chapter 5.

and because it was hard and time-consuming work to fell trees with handsaws and axes, any trees with low commercial value were frequently left standing.

Commercial lumber operations meant not only cutting trees, but also constructing temporary dams to float logs downriver. Such dams altered river flows, affecting fish, wildlife, and riparian vegetation. Rafts of logs, shooting down small rivers, scoured the channels bare of spawning gravels, riparian vegetation, and instream cover. Little or no attention was given to mitigating this habitat destruction. Some early attempts through hatchery mitigation occurred, in part, to offset these destructive logging practices in tributaries.

Mining[21]

Mining for precious metals in the Pacific Northwest has continued from the early days of settlement until the present.[22] Finding gold and silver was the priority of the first miners in the 1800s and early 1900s. Mining, whether for gold or gravel, usually took place in or near streams and creeks—the same waterways salmon used for spawning and rearing.

The initial mining practices (some underground mining, but mostly placer, or dredge, mining) caused tremendous destruction of salmon habitat in streams and creeks. With placer or dredge mining, miners removed large amounts of the stream bed, washed and screened the material to find precious metals, and finally discarded the processed material along stream banks. Mining might have released or concentrated naturally occurring hazardous materials such as mercury, which may then have become concentrated in aquatic life and in those who dined upon it—especially Native Americans. In the case of underground, or hard-rock, mining, water from streams was needed to wash the mined material.

These operations disrupted salmon activity in the affected streams and created permanent changes in stream structure. For example, scooping out the streambed deepened the channel of the stream. This deepening may have increased the speed of the water flow in the stream, disturbing or destroying salmon spawning grounds and removing streamside vegetation. (Juvenile salmon need calm, slow-flowing water to live in as they develop.) Also, erosion from the tailings of hard-rock mining carried trace amounts of toxic chemicals, such as mercury, into streamflows or into sediments in streambeds and floodplains.

Relationships with Native Americans

The establishment of the Oregon Territory in 1848 created a problem: How to bring about ownership of land—desirable land—where other peoples were already living and on which they depended for their survival. Beginning in the 1850s, the United States government enacted laws and regulations that would displace the native inhabitants of the

[21] The following material is from Rost, Bob 1998. The history of mining activity and its environmental impacts in Oregon is similar to the experiences of the other Pacific Northwest states.

[22] Mining is not currently a major industry in the Pacific Northwest. See discussion under Section 2.3.1.3.

Oregon Territory from their traditional use lands and allow the United States to claim title to those lands.

Conflict between missionaries and the interior-basin Indian tribes erupted as the stream of settlers moving into the Region increasingly alarmed the Indian inhabitants.[23] Hostilities between settlers and the Indians were fueled, in part, by the lack of treaties. In 1850, Congress passed the Indian Treaty Act, which authorized the purchase of lands from various tribes and removal of Indians to other areas (albeit, where settlers did not want them). Treaties were negotiated with some tribes who were willing to cede some of their lands. Relocation of tribes to reservations was a wrenching and socially disruptive event for tribal people. Unrelated tribes or bands were sometimes grouped together for expediency by the government and relocated onto reservations far from ancestral lands and resources. However, virtually all of the tribes asserted the need and desire to retain some lands for their own use.

Washington became a territory of the United States on March 2, 1855. A key mission in Washington (and Oregon) was the disposition of Indian land rights. Indian lands were rapidly being taken by settlers who were encouraged by the Oregon Donation Land Act.[24] In order to foster development and "pacify" the tribes, Isaac Stevens (Washington governor and superintendent of Indian affairs) pushed for treaties with Indians who lived along proposed railroad routes.[25] During the same year, Joel Palmer, superintendent of Indian Affairs in Oregon, pursued similar treaties with several Oregon tribes. The desired effects were to extinguish Indian land ownership in exchange for certain protections for the tribes and create enticements for Indians to become agrarian.

Stevens (and Palmer) discovered that the Indians, though recognizing the necessity for selling much of their land, were adamantly against being moved away from it, and refused to accept centralized reservations. A basic misunderstanding during treaty-making lay in the differing concepts about land. Non-Indian culture regarded land as a commodity to be owned, fenced, bought, and sold. To the Native American Indians, land was part of a spiritual heritage, not an article of trade. Stevens acceded to the tribes' reserving a portion of their homeland.

The importance of fish to the Indians seems to have impressed Stevens. He did not intentionally reserve to the Indians any more rights than he thought necessary, but he understood that the one indispensable requirement for securing agreement of any kind from Pacific Northwest Indians was to assure their continued right to fish. That right was as valuable to them as their lives: "It was also thought necessary to allow them to fish at all accustomed places, since this would not in any manner interfere with the rights of citizens, and was necessary for the Indians to obtain a subsistence."[26]

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[23] American Friends Service Committee 1970, p. 16.

[24] American Friends Service Committee 1970, p. 16.

[25] American Friends Service Committee 1970, p. 19

[26] American Friends Service Committee 1970, p. 21.

Through treaties with the United States, several Columbia River tribes[27] reserved their right to fish inside and outside reservation boundaries. These rights would become, by the mid-20th century, an important point of contention and source of legal action, as well as an issue with biological and cultural significance.[28] In a treaty with the United States, the Shoshone-Bannock Tribes of the Fort Hall Reservation reserved rights to fish for anadromous species. Also, in the northern Great Basin of Idaho and Oregon, a series of peace treaties was conducted with several Shoshone and Bannock groups, culminating in the Fort Bridger Treaty of 1868.

In short order, conflict erupted over the recently concluded treaties. Settlers, misled by word that the treaties were in full effect, began moving onto Indian lands before congressional ratification. The tribes had been promised that they would not have to move until the treaties were ratified—perhaps two years later—and tribal distrust of the terms of the treaties grew. A period of hostilities and, in some cases, war erupted in the aftermath. Congress delayed ratification of most treaties until hostilities were ended.

In 1871, Congress passed legislation to cease any new treaties with Indian tribes and stopped recognizing additional tribes as separate nations. The legislation specifically recognized that all existing treaties then in existence were to be honored. The Federal government thereafter relied upon Agreements and Executive Orders to legally acquire Indian lands, allow tribes to cede lands, establish reservations, provide Federal recognition of tribes, and remove Indian peoples to reservations. Tribes also had, and have, constitutions and by-laws that formalize their governmental organization and express their relationship with the Federal government.

In 1887, Congress passed the General Allotment Act (the Dawes Act). This legislation allotted reservation lands to individuals. Under the treaties, land was held in common by the tribe and the concept of individual ownership was unknown. The stated purpose of the Dawes Acts was to encourage individual ownership and farming. In practice, however, this program failed and much of the lands reserved in the treaties passed from tribal ownership and was subsequently sold.

Under the Federal goal of settling the land, the government encouraged immigrants to develop the West, securing the young country's claim to its borders and all that lay inside them. The government began to grant land rights to settlers and railroads. The resulting differences in land ownership and management practices and objectives, and the increasing population pressure on land, water, fish, wildlife, and vegetation, would set the stage for a policy of enhancing commerce at the expense of natural resources (for land ownership see map Figure 2.13 at the end of this chapter).

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[27] These four tribes are the Nez Perce Tribe, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, and the Confederated Tribes and Bands of the Yakama Indian Nation, which have reserved the right in fish in "usual and accustomed places" along with "citizens of the territor(y)."

[28] *See generally* Corps 1999c.

Commercial Development

The gold rushes of the 1850s and 1860s stimulated another kind of commerce—agricultural development. The Region became populated with erstwhile miners who had migrated West to seek their fortunes, but who—finding rich soil instead—stayed to farm.[29] Inland settlers found a vast, arid prairie ideal for raising livestock: more than 90 million acres of grassland covered eastern Oregon and Washington and southern Idaho. Where settlers had access to waterways, wheat and grain farming quickly became the dominant economic activity.[30]

The gold rush, and subsequent agricultural development, further increased environmental pressures on natural resources. Any impulse toward cooperation tended to be undermined by the stipulations of land initiatives, which inadvertently promoted *individual* gain rather than collective benefit.[31] Resources were used without regard for future consequences.

Near the end of the nineteenth century, Federal interests began a shift in policy direction: from exploration and development to retention and management of those lands—keeping them (more safely, it was thought) under the wing of the government itself. Lands were now withdrawn to delineate Indian lands, timber resources, potential power sites, scenic areas, grazing lands, and lands to be managed for other public uses. The 1890s saw withdrawals of land that eventually became National Forests administered by the USFS. Some withdrawn areas were subsequently designated as national parks to be managed by the National Park Service (NPS).

That control extended to the waters of the United States as well: canals and locks were built to enable commerce, interrupting river flow and blocking passage for anadromous fish upstream to their natal streams. Nevertheless, commercial development remained the policy focus through the 1930s, as fish harvests became more efficient with new technology and rivers were harnessed by dams for irrigation and flood control, as well as for the production of hydroelectric power. Issues such as effects on fish, wildlife, vegetation, or even the regional population were considered only minimally, if at all.

Early 20th Century: Taming Land and Water

The Reclamation Act of 1902 brought about the construction of large, multiple-use Federal dams, such as the Minidoka in Idaho, which combined the purposes of flood control, irrigation, and hydropower. However, a change in the accustomed flow of water at any one point inevitably affects fish, wildlife and human uses both at that point and downstream. At this time, the policy was in favor of development and use of natural resources without regard to environmental impacts.

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[29] Pacific Northwest River Basins Commission 1971, Appendix IX: Irrigation, p. 4.

[30] PNRBC 1971, p. 3.

[31] Fahey, J. 1986, pp.88-90, 97-99; Lichatowich 1999, pp. 48 and 50.

In 1915, more canals and locks were built on the river, this time at Celilo Falls. When the project was completed in May of 1915, six steamboats passed through the newly opened canal. Waterborne commerce developed as planned, and the canal helped keep rail rates below monopoly levels.

In 1920, Congress responded to the surge in demand for electric power created by World War I by enacting the Federal Water Power Act, which established the Federal Power Commission (FPC), later to become the Federal Energy Regulatory Commission (FERC). The FPC was responsible for licensing non-Federal hydroelectric power projects that affect navigable waters, occupy Federal lands, use water or water power at a government dam, or affect the interests of interstate commerce. The Act also required the FPC to license only those projects that, in its judgment, were "… best adapted to a comprehensive plan for improving or developing a waterway or waterways …."[32]

Commerce on the river remained light until the multi-purpose dams were constructed in the Columbia and Snake rivers (beginning in 1938). In the Rivers and Harbors Act of 1945, Congress authorized construction of an inland navigation system on the Snake River.[33] Five years later, Congress authorized construction of the John Day and The Dalles dams, pursuant to Section 204 of the Rivers and Harbors Act of 1950.[34]

Between 1803 and 1930, almost all the policy issues that currently interweave and conflict had developed: governmental authority, fishing rights, irrigation, transportation, flood control, hydroelectric power, land use, land ownership, and so on. The fish and wildlife resources were in substantial decline from the immense immigration of European settlers, who developed the land and used the water. Recognition of environmental issues lagged behind in the continuing drive to settle the West, exploit its vast natural resources, and move the country to a position of commercial (and therefore political) power.

Early State and Federal Fish and Wildlife Management

Two of the contemporary deans of environmental law have observed that "[t]he public attitude toward wildlife as a resource has shifted from that of putting food on the table to one of recreational, scientific, and aesthetic interest, and wildlife management and protection has become a legal matter."[35] In most of the nineteenth century, the few basic state fish and wildlife statutes were ineffective due to lack of funding for wardens, equipment, and programs. The 20th century, however, saw the evolution of fish and wildlife law from a set of relatively narrow state hunting and fishing rules to more comprehensive, frequently interjurisdictional, statutes of broader dimensions and perspectives.

Some examples of major early Federal statutes addressing fish and wildlife management include the following:

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[32] Federal Power Act, 16 USC 803 (a)(1).

[33] Comment letter from the Inland Ports and Navigation Group (IPNG) dated August 31, 2001.

[34] IPNG comment letter, 2001.

[35] Coggins, G. and C. Wilkinson 1987, p. 779.

Lacey Act (1900)

This Act was passed in response to the rapid depletion of game, as a result of market hunting, and the decline of non-game bird populations, shot for the plume market. The Act, later amended, prohibits the interstate shipment of fish and wildlife taken in violation of a Federal, state, tribal, or foreign law.

Migratory Bird Treaty Act (1918)

The original 1918 statute implemented the 1916 Convention between the United States and Great Britain (for Canada) for the protection of migratory birds. Later amendments implemented treaties between the U.S. and Mexico, the U.S. and Japan, and the U.S. and Russia. The Act made it unlawful to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention … or any part, nest, or egg of any such bird" unless otherwise permitted by regulation.

Migratory Bird Conservation Act (1929)

The Act established a Migratory Bird Conservation Commission to approve areas recommended by the Secretary of the Interior for acquisition with Migratory Bird Conservation Funds. The Commission is directed to report each year to Congress on its activities during the preceding fiscal year. The Secretary of the Interior is authorized to cooperate with local authorities in wildlife conservation, to conduct investigations, to publish documents related to North American birds, and to maintain and develop refuges. The Act provides for cooperation with states in enforcement. It established procedures for acquisition by purchase, rental, or gift of areas approved by the Commission for migratory birds.

Migratory Bird Hunting and Conservation Stamp Act (1934)

The "Duck Stamp Act" requires each waterfowl hunter 16 years of age or older to possess a valid Federal hunting stamp. Receipts from the sale of the stamp are deposited in a special Treasury account known as the Migratory Bird Conservation Fund and are not subject to appropriations. Funds are merged with receipts under the Wetlands Loan Act for the acquisition of migratory bird refuges.

Fish and Wildlife Coordination Act (1934)

This Act created several different authorizations. It grants the Secretaries of Agriculture and Commerce the authority to both assist and cooperate with Federal and state agencies to protect, rear, stock, and increase game and furbearer populations. It also allows for the study of the effects of domestic sewage, trade wastes, and other polluting substances on wildlife. Finally, the Act requires that impounded waters are to be used for fish-culture stations and migratory bird areas, and that any new dam construction allow for fish migration.

Federal Aid in Wildlife Restoration "Pittman-Robertson" Act (1937)

Funds from an excise tax on sporting arms and ammunition are appropriated to the Secretary of the Interior and apportioned to states on a formula basis for paying up to 75% of the cost of approved projects. Project activities include acquisition and improvement of wildlife habitat, introduction of wildlife into suitable habitat, research into wildlife problems, surveys and inventories of wildlife problems, acquisition and development of access facilities for public use, and hunter education programs, including construction and operation of public target ranges.

With the clarification, in 1896, that wildlife was owned in trust by the states for their people, states began exercising a fundamental right stemming from that authority: taxation. Hunting and fishing license fees generated considerable state revenues and became the primary source of funds for fish and wildlife management. A symbiosis then developed in which the states' resource regulators began regulating on behalf of those who paid for the regulations: hunters and fishermen. With few exceptions, until the mid-1960s, Congress imposed minimal requirements on states' management of fisheries and wildlife.

2.3.1.3 The Era of Federal Intervention: The mid-1930s up to the Regional Act in 1980

After the stock market crash of 1929, and during the subsequent multi-year Depression, Federal action focused both on managing the resources and providing economic support for the shaken economy in the form of projects. These projects—large and small—would provide work and jobs, and would support a strong nation. This meant that the policy was to make major and broader changes to the environment, both water and land.

Although early settlers had turned their attention to canals and dams on tributaries, the Columbia River itself was difficult to harness. Some private entrepreneurs sought authorization to build some projects. However, by 1930, the FPC had withdrawn four hydro project licenses from one potential developer who was not moving quickly enough to build dams at the current locations of Chief Joseph and McNary Dams. In 1931, non-Federal developers began construction of Rocky Reach Dam.

Federal Hydroelectric Development

The Federal government itself did not seriously consider the Columbia River for development until 1925, when the Rivers and Harbors Act instructed the Corps to survey and report on the Columbia's potential for electric power, navigation, flood control, and irrigation development. The authorizing legislation specified the purpose, or purposes, for which the Corps may operate the dams. Completed in March 1932, the 1845-page "308 report" document characterized the Columbia as the "greatest system for water power to be found anywhere in the United States,"[36] and recommended ten dams for navigation and electricity production.

[36] House Document No. 308 (308 Report) 1927.

A commerce-driven policy was now moving to center stage. Decisionmakers recognized both the potential bonus for development offered by dam-building *and* the possibility that the anadromous fish populations would increasingly be hampered in their attempts to travel from their natal stream to the ocean and back. Human needs were given priority, and the report was approved. Construction of dams was authorized to meet these needs. Construction soon began on two massive dams: the Grand Coulee Dam in 1937, and the Bonneville Dam in 1938. A 1937 compromise created BPA as an interim agency within the Department of Interior (DOI). The agency was to market power output from the Federal dams on the Columbia, giving preference to public customers.

In addition to hydropower generation and marketing, navigation,[37] and irrigation, flood control was an important aspect of dam-building that supported human needs. The Columbia and other major tributary rivers were not yet tamed by the dam projects suggested by the Corps' report. Flooding was a frequent, but unpredictable, occurrence as winter snows melted or storm cycles passed through the Region. Significant flood events occurred throughout the Columbia River Basin, washing away vegetation, changing the river course, and renewing low-lying lands with rich deposits from upstream.

From 1953 to 1975, 15 Federal dams were built on the Columbia and Snake Rivers, a dramatic increase over the preceding era. Twelve of the dams are part of the FCRPS, for which the Corps maintains primary responsibility for day-to-day operation and maintenance. In 1964, the Corps, the Bureau, and BPA entered into an inter-agency contractual agreement, the Pacific Northwest Coordination Agreement, to coordinate operations of the FCRPS and non-Federal dams in the Basin.

The Federal government also looked beyond its borders: in 1961, the United States and Canada entered into the Columbia River Treaty. The treaty, however, which allows joint United States/Canada development on the river, addresses only two issues: hydropower generation and flood control. The agreement contains no provisions related to environmental concerns or the needs of salmon, and is therefore very limited in its reach.

The Northwest transmission system was developed simultaneously with hydroelectric development (see map Figure 2.15 at the end of this chapter). The transmission lines were built to move the new generation to the load areas. The capability of the transmission system is tied to generation levels, especially at the critical hydroelectric projects along the lower Columbia and lower Snake rivers.

Columbia River Treaty

The Federal government also looked beyond its borders. In 1961, the United States and Canada signed the Columbia River Treaty; it was ratified in 1964. The Treaty provided for building four storage dams: three in Canada (Mica, Keenleyside, and Duncan) and one in the United States (Libby). The reservoirs built and operated under the Treaty

[37] See comment letter #29, from the Inland Ports and Navigation Group, dated August 31, 2001, for a more detailed history of the importance of navigation on the Columbia and Snake rivers.

represent almost half the water storage capacity on the Columbia River system. The Treaty, however, addresses only hydropower generation and flood control. It contains no provisions related to environmental concerns, specifically the needs of salmon.

The three Canadian storage dams provide regulated flows that enable hydroelectric projects downstream in the United States to produce additional power benefits. The Treaty requires the United States to deliver to Canada one-half of these downstream power benefits—the Canadian Entitlement. The United States' obligation to deliver the Entitlement extends to 2024, the first year the Treaty can be terminated with 10 years' notice. The Canadian Entitlement Allocation Agreements (CEAA), also executed in 1964, established how the Canadian Entitlement was to be attributed to the six Federal and five non-Federal downstream hydroelectric projects. The CEAA have been extended until 2024.

The Pacific Northwest Coordination Agreement (PNCA) is a direct outgrowth of the Columbia River Treaty. The PNCA, also signed in 1964, is a complex contract that provides for coordination of electric power production on the Columbia River to maximize reliability and power production, while providing priority to non-power objectives.

Non-Federal Hydroelectric Development

By 1932, the Oregon Fish Commission estimated that "approximately 50% of the most productive area within the basin [had] been lost to the salmon industry by the construction of dams for irrigation and power, thus isolating spawning areas."[38]

The Federal government was a prime mover for building non-Federal dams in the 1930s, 40s, and early 50s and beyond. Congress authorized Grant County Public Utility District to file an application for a license to build a dam at Priest Rapids (mid-Columbia). That license was followed by licenses for more dams, all to be operated by the mid-Columbia public utility districts. FERC has regulatory authority over non-Federal hydroelectric projects on the Columbia River and its tributaries (see map Figure 2.14 at the end of this chapter). Until 1986, FERC was not required by law to include provisions for fish and wildlife affected by the licensed projects. FERC must now consider Federal and state fish and wildlife agency recommendations to protect and mitigate damages caused by the licensed projects. Many of the original licenses granted by FERC were issued several decades ago, for a period of fifty years. Most contain no fish and wildlife conditions. Numerous projects in the Region have licenses that will expire within the next decade and must be relicensed by FERC. The ongoing and future relicensing process provides an opportunity to set conditions for project operations to meet the needs of fish and wildlife.

In the early 1950s, the Eisenhower Administration moved to encourage private development, rather than Federal control, of hydroelectric projects. The Idaho Power Company received its license to build a series of three dams, the Hells Canyon Complex,

[38] Lichatowich, J. 1999, p. 70.

in 1955. When complete, the complex blocked 80% of the habitat for Snake River fall chinook and created water quality problems, such as increased water temperature, that remain unresolved.

Effects from Dam Construction and Operation on Fish and Wildlife

Dams have had an enormous effect on downstream and upstream fish and wildlife habitat. Grand Coulee Dam (completed in 1941) permanently blocked 1400 miles (2253 km) of spawning habitat for chinook.[39] It eliminated the famed Kettle Falls fishery and all remnants of many upriver fish runs and inundated 56,000 acres[40] of land that previously supported a variety of wildlife. The Hell's Canyon Complex, constructed by Idaho Power Company in 1967, eliminated all remaining anadromous fish production in the upper Snake River Basin, including sockeye, spring/summer, and fall chinook salmon;[41] it also inundated wildlife habitat. This was especially offensive to fishery interests because Idaho Power Company's Federal license to build the dam required passage for salmon. The National Research Council has estimated that, of the original salmon and steelhead habitat available in the Columbia River Basin, "55% of the area and 31% of the stream miles have been eliminated by dam construction."[42]

Other run-of-river dams (such as the John Day, 1968) on the Columbia and lower Snake all have fish ladders and, therefore, allow passage of adult salmon.[43] However, the reservoirs created by storage dams inundated salmon spawning grounds, wildlife habitat, and cultural resource sites. It took years for many in the Region to recognize the negative ecological and economic consequences to the fishery from more than 100 years of development. Hatchery fish mitigation tended to mask the effects: even though up-river species of salmon were only a fraction of their historic abundance, the average total harvest in the mainstem Columbia was around 550,000 fish in the 1960s and 1970s. The catch rose to around 720,000 in the 1980s; 1.6 million fish were taken in 1986, largely due to the success of hatchery operations in the lower Columbia River. Today, hatchery fish constitute 80% or more of the catch for most chinook and coho species. Tribal fisheries in the upper Basin were particularly hard hit, because hatchery programs did not necessarily mitigate for the species affected or provide mitigation in locations where fish losses occurred.

Timber Harvest

The commercial interest in timber also continued to grow. With the invention of the gas-powered chainsaw and improvements in transportation soon after World War II, logging greatly increased on Federal, state, and private lands in the Pacific Northwest.

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[39] Lichatowich, J. 1999, p. 222.

[40] Note: This figure represents land area inundated, and does not include former river area. Sprankle, Craig 2000.

[41] Snake River Salmon Recovery Team 1994, p. II-8; Council 1992, Vol. I, pp. 28, 33.

[42] NRC 1996, p. 53.

[43] Berryman, A.A., et al. n.d.

Timber harvesting had important consequences for wildlife, soils, vegetation, water quality and fish—as well as for local economies. Human needs for recreation (in the form of hunting and fishing), as well as Federal revenue needs and commercial desires for the easiest possible harvest, shaped timber harvest management. Forests were fragmented to increase habitat conditions preferred by deer and elk populations. Extensive road systems were developed to facilitate timber harvest and provide easy hunting and fishing access. Revenues from timber harvest improved local economies and provided substantial funds to the Federal Treasury. It was assumed that forests managed in this manner could be cut and regrown at relatively short intervals (such as 40 to 80 years) without negatively affecting other resources such as water, fish, soils, or terrestrial wildlife.

Mitigation/The Environmental Movement

For more than 150 years, the European-American settlers of the West and their descendents had exploited the Region's natural resources—including its fish and wildlife. "The belief was that wildlife resources were unlimited and harvest could continue forever. They did not. Wildlife populations fell and species became extinct."[44] Public awareness of declining conditions began to affect public policy in the middle of the twentieth century. People saw clearcuts not returning to their healthy pre-cut state, the game they hunted become more scarce, the streams plug up with silt when heavy rains washed dirt down eroded banks, and the numbers of salmon returning from the ocean steadily diminish. In response, a number of environmental laws directly affecting fish, wildlife, and their habitat were passed.

Mitchell Act (1938)

The act authorized funding for state and Federal hatcheries on the Lower Columbia River. This was the first major Federal funding for fish mitigation, although hatcheries had existed since the turn of the century (see map Figure 2.9 at the end of this chapter; for a detailed list of hatcheries see Appendix G). The hatcheries were meant to offset the consequences on fish primarily from irrigation projects and overfishing, but also for the consequences from construction of Bonneville and Grand Coulee dams. Funds were used to pay for large irrigation diversion screening programs and hatcheries, mostly in the lower Columbia River below the dams, and where they would intentionally benefit non-Indian fisheries in the ocean and lower river (see Section 2.3.2.3). Because upper-basin stocks losses were not mitigated with hatcheries until later, catches (especially those in upriver tribal fisheries) continued to decline. At the time, hatcheries were chosen to remedy the loss due to dams and other related actions, without an understanding of genetic consequences and potential effects on wild fish. Salmon production during the current era would have probably fallen even more precipitously if salmon produced in hatcheries had not increased sharply after World War II.

[44] Moulton, M.P. and J. Sanderson 1997, p. 19.

Federal Aid in Sport Fish Restoration "Dingell-Johnson" Act (1950)

Also known as the Wallop-Breaux Act, it provided Federal aid to the states for management and restoration of fish having "material value in connection with sport or recreation in the marine and/or fresh waters of the United States." In addition, amendments to the Act provide funds to the states for aquatic education, wetlands restoration, boat safety and clean vessel sanitation devices, and a nontrailerable boat program. Funds distributed to states for the various programs funded in the Act are collected in an account known as the Sport Fish Restoration Account. Funds are derived from an excise tax on certain items of sport fishing tackle, fish finders and electric trolling motors; import duties on fishing tackle, yachts and pleasure craft; interest on the account; and a portion of motorboat fuel tax revenues and small engine fuel taxes.

Multiple-Use Sustained-Yield Act (1960)

In this act, Congress declared that the purposes of the National Forest include outdoor recreation, range, timber, watershed, and fish and wildlife. The Act directed the Secretary of Agriculture to administer National Forest renewable surface resources for multiple use and sustained yield. The Act does not affect the jurisdiction or responsibilities of the states, the use or administration of the mineral resources of National Forest lands, or the use or administration of Federal lands not within the National Forests. Under the Act, multiple use means management of all the renewable surface resources of the National Forests to meet the needs of the American people. Sustained yield means achievement and maintenance of a high-level regular output of the renewable resources of the National Forest without impairment of the land's productivity.

Bald and Golden Eagle Protection Act (1962)

When passed in 1940, this act only protected bald eagles, however, it was amended in 1962 to include golden eagles. Congress originally protected bald eagles in order to protect the "symbol of American ideals of freedom." The act protects not only bald and golden eagles, but also their parts, eggs or nests. The act makes actions to "take" or "possess" eagles illegal, as well as actions that included selling, purchasing or transporting eagles. However, Congress has amended the act several times creating exceptions to the "take" restrictions particularly when used for the religious purposes of Indian tribes, when golden eagles are taken as a result of livestock depredation, and when golden eagle nests interfere with resource development.

Wilderness Act (1964)

The Wilderness Act established the National Wilderness Preservation System. The intent was to designate natural areas for preservation and protection before they became occupied or were modified. The Secretary of the Interior was directed to review every roadless area of 5,000 acres or more and every roadless island within the national wildlife refuge and national park systems for possible inclusion in the System. The Act also included some National Forest lands in the System and directed the Secretary of Agriculture to recommend others. To date, over 100 million acres have been included in the National Wilderness Preservation System.

Anadromous Fish Conservation Act (1965)

This act authorized the Secretaries of Interior and Commerce to enter into cooperative agreements with states and other non-Federal entities to further the conservation, development, and enhancement of anadromous fish. The types of activities that are authorized include investigations, engineering and biological surveys, research, stream clearance, construction, maintenance and operations of hatcheries, and devices and structures for improving movement, feeding, and spawning conditions. As part of these agreements these Departments can contribute up to fifty percent of the cost—the Federal share.

Wild and Scenic Rivers Act (1968)

In 1968, Congress declared that some rivers possessed "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other value" and should be protected. The protection of these rivers, or a segment of a river, is meant to preserve both the river in its free-flowing form and its immediate environment. This Act was meant to address the national policy of water development (e.g. dam construction) by allowing for non-developed areas of rivers to be protected in their natural form. A number of rivers throughout the Northwest enjoy protection under this Act.

Marine Mammal Protection Act (1972)

The Marine Mammal Act was the first Federal wildlife statute that focused on species populations and ecosystem protection. Other laws up to this point had either reinforced state law, protected individual species, or prohibited certain conduct. The only law that was similar to this act was the Migratory Bird Treaty Act, although it primarily focused on hunting. This law protects all marine mammal species including whales, porpoises, seals, walruses, manatees, polar bears, and sea otters. It was passed as concern grew over the number of marine mammal mortalities from commercial fishing. The Act put an indefinite moratorium on the take or importation of marine mammals. However, this law was later amended, removing the "take" ban as it applied to incidental mortality from commercial fishing and allowing for management based on acceptable mortality levels.

Magnuson-Stevens Fisheries Conservation and Management Act (1976)

This statute, amended in 1996, was passed due to a growing concern over the decline of certain fish stocks as a result of increased fishing pressure, the inadequacy of conservation practices and controls, and habitat loss—both direct and indirect. The decline in fish stocks had adverse effects on commercial and recreational fishing, further increasing the need for Federal intervention. The purposes of the act were to "conserve and manage the fishery resources found off the coasts of the United States, and the anadromous species and Continental Shelf fishery resource"; and enforce international fishery agreements pertaining to highly migratory species.

The noticeable environmental pressures from decades of population and commercial growth brought a surge of environmental legislation from the United States Congress. The passage of the National Environmental Policy Act in 1969 increased the momentum

(see Section 2.3.2.1). From 1970 through 1980, Congress promulgated the following additional major environmental statutes:

- Resource Conservation and Recovery Act (1972);
- Marine Protection, Research, and Sanctuaries Act (1972);
- Clean Water Act (1972, 1977) (see Section 2.3.2.1);
- Endangered Species Act (1973) (see Section 2.3.2.1);
- Safe Drinking Water Act (1974);
- Toxic Substances Control Act (1975);
- Coastal Zone Management Act (1976);
- Hazardous Materials Transportation Act (1977);
- Clean Air Act (1977);
- Fish and Wildlife Conservation Act (1980); and
- Comprehensive Environmental Response, Compensation and Liability Act (1980).

Together with ocean harvest reforms adopted in the Magnuson Fishery Conservation and Management Act (1976), the United States-Canada Pacific Salmon Treaty (1985), and the *U.S. v. Oregon* treaty rights case (1968), a substantial number of environmental rules and regulations with which to protect and enhance fish and wildlife, including Columbia River anadromous fish, had been established.

2.3.2 Recent Developments: The Period of "Equitable Treatment" for Fish and Wildlife (1980—2002)

By 1980, it was accurate to say that Columbia River fish and wildlife policy was in many respects dictated by Federal statutes and the implementing policies and regulations. Crucial decisions, especially those involving the Columbia River hydropower system, were made by Congress, Federal agencies, and the Federal courts. In 1980, Congress passed the Regional Act, which provided "equitable treatment" for fish and wildlife. Federal, state, tribal, and local governments, and citizen efforts to recover salmon populations accelerated in the 1990s. The first significant event was the Northwest Salmon Summit, convened in 1990 to address the problem of declining salmon stocks. The intent was to reach a consensus among diverse Northwest interests to formulate a plan to reverse this trend. Unsuccessful in being able to reach a consensus on a comprehensive plan of action, however, it was successful in bringing a diverse group together to address salmon issues and commit to continue efforts to rebuild depleted salmon stocks. These efforts continued through the 1900s and continue today.

2.3.2.1 Primary Federal Statutes

Several environmental statutes—the National Environmental Policy Act, the Clean Water Act, Endangered Species Act—and the Pacific Northwest Electric Power Planning and